

# **WIND RIVER ROAD**

## **Project Checklist**

**Washington Forest Highway 30**  
**Paradise Creek Campground to Oldman Pass**

**MP 20.5 to MP 25.4**



*Prepared by:*  
U.S. Department of Transportation  
Federal Highway Administration  
Western Federal Lands Highway Division

*August, 2002*

## LIST OF ACRONYMS

3R	Resurfacing, Restoration, and Rehabilitation
AASHTO	American Association of State Highway & Transportation Officials
BST	Bituminous Surface Treatment
CADD	Computer Aided Design and Drafting
CE	Categorical Exclusion
DHV	Design Hourly Volume
DNR	Washington State Department of Natural Resources
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
FDR	Forest Development Road
FH	Forest Highway
FR	Forest Road
FS	United States Forest Service
FY	Fiscal Year
ha	hectare
kg	kilograms
kL	kiloliter
km	kilometer
km/h	kilometer per hour
m	meter
m <sup>2</sup>	square meter
m <sup>3</sup>	cubic meter
MMBF	Million Board Feet
MP	Mile Post
mph	Mile Per Hour
NEPA	National Environmental Policy Act
NF	National Forest
NPS	National Park Service
PE	Preliminary Engineering
RV	Recreational Vehicle
RVD	Recreational Visitor Day
SADT	Seasonal Average Daily Traffic
SPA	Stream Preservation Act
t	metric ton
US	United States
USC	United States Code
USFS	United States Forest Service
USGS	United States Geological Survey
WA	Washington
WDFW	Washington Department of Fish and Wildlife
WFLHD	Western Federal Lands Highway Division
WSDOE	Washington State Department of Ecology
WSDOT	Washington State Department of Transportation

## PROJECT CHECKLIST

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### **Purpose of Project Checklist**

The project checklist is used by the Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration as part of its early coordination and data gathering process. It provides opportunity for public and governmental agencies which may be affected by the proposed action, or which may have regulatory or administrative interest, to become involved in the project development process at an early stage.

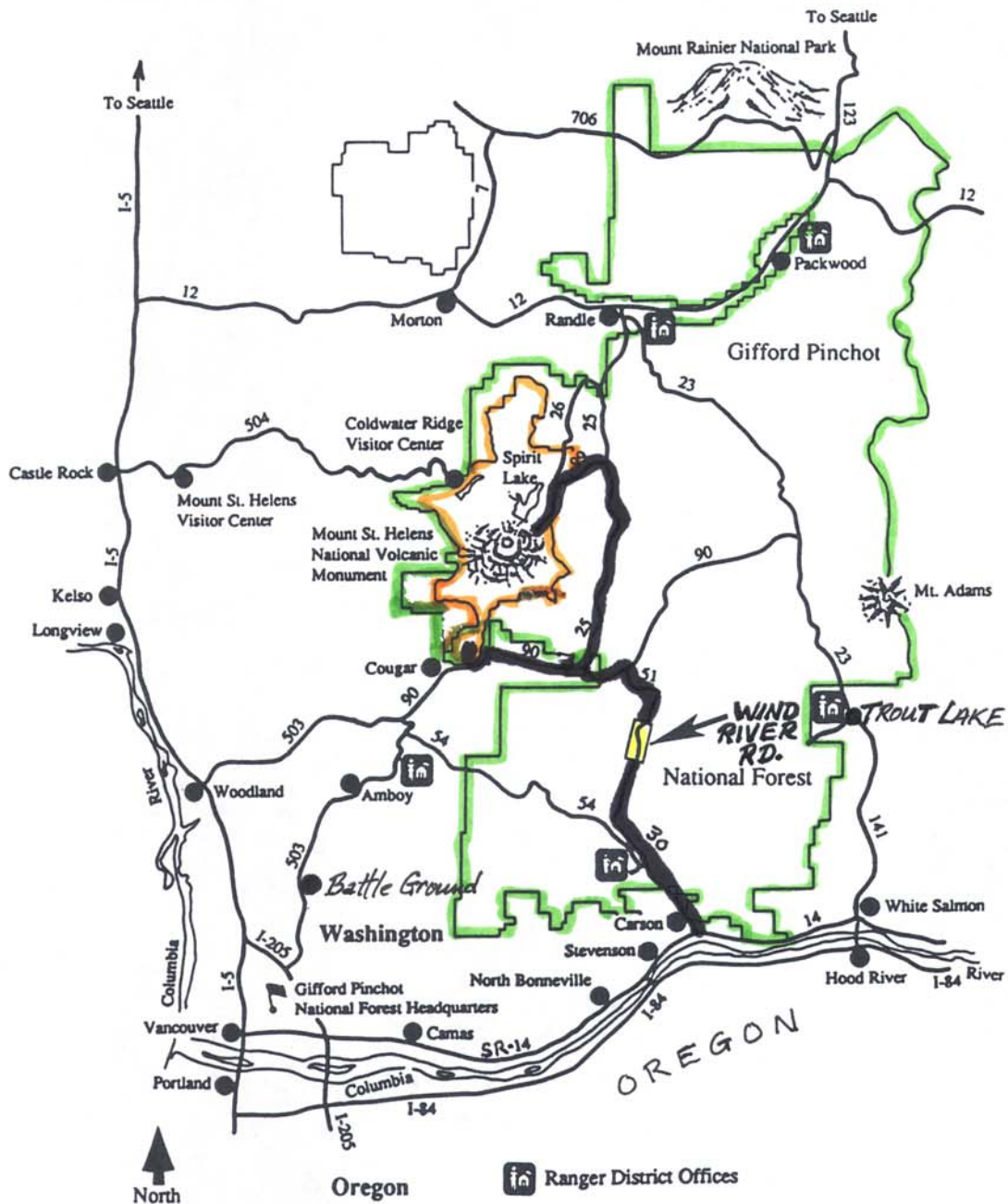
Besides describing the project need and scope of proposed highway upgrading, the checklist contains an initial estimate of environmental resources, potential impacts, and related issues in the project study area., it aids in identifying issues in the project study area. It also aids in identifying issues which are insignificant or have potential consequences.

The checklist contains the results of the location studies, engineering investigations, and environmental studies completed to date. This information will provide the principal input to the future NEPA clearance documents and highway design activities.

The document provides information to help determine the type of project classification and the scope of the environmental document, e.g., Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS). One of these documents is required for each project to comply with the National Environmental Policy Act (NEPA).

The checklist is prepared at the beginning of project development and is expanded when new information becomes known throughout the study period. The list includes the agencies involved in the project and the name, title, address, and phone number of persons representing those agencies.

# Gifford Pinchot National Forest



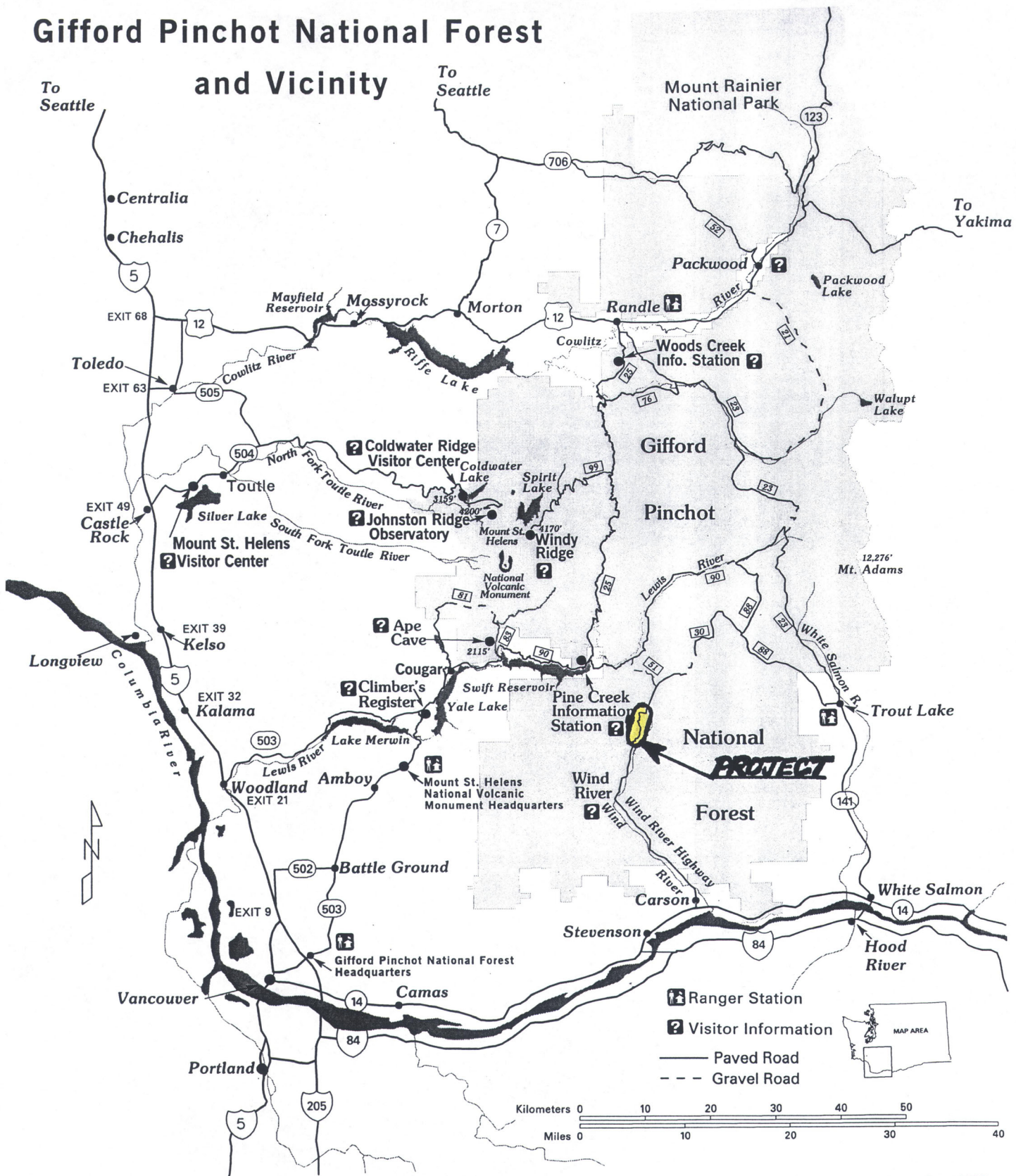
Vicinity map, Gifford Pinchot National Forest. Project location indicated by arrow.

"GATEWAY" ROUTE TO MT. ST. HELENS NATIONAL VOLCANIC MONUMENT SHOWN IN BOLDFACE. THE NATIONAL MONUMENT IS OUTLINED IN ORANGE. THE NATIONAL FOREST IS OUTLINED IN GREEN.

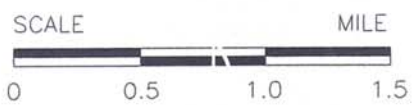
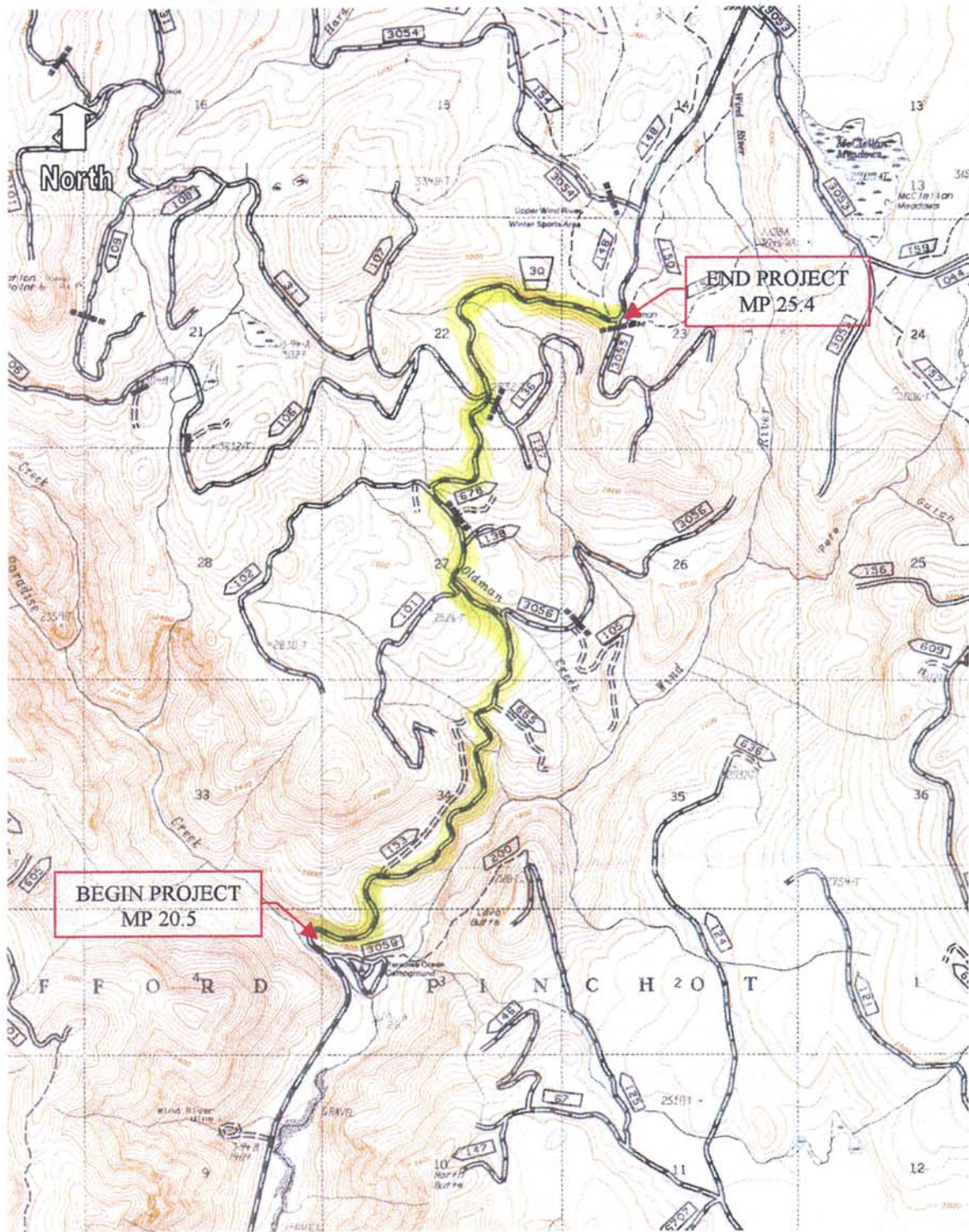


# Gifford Pinchot National Forest

## To **and Vicinity** To Seattle

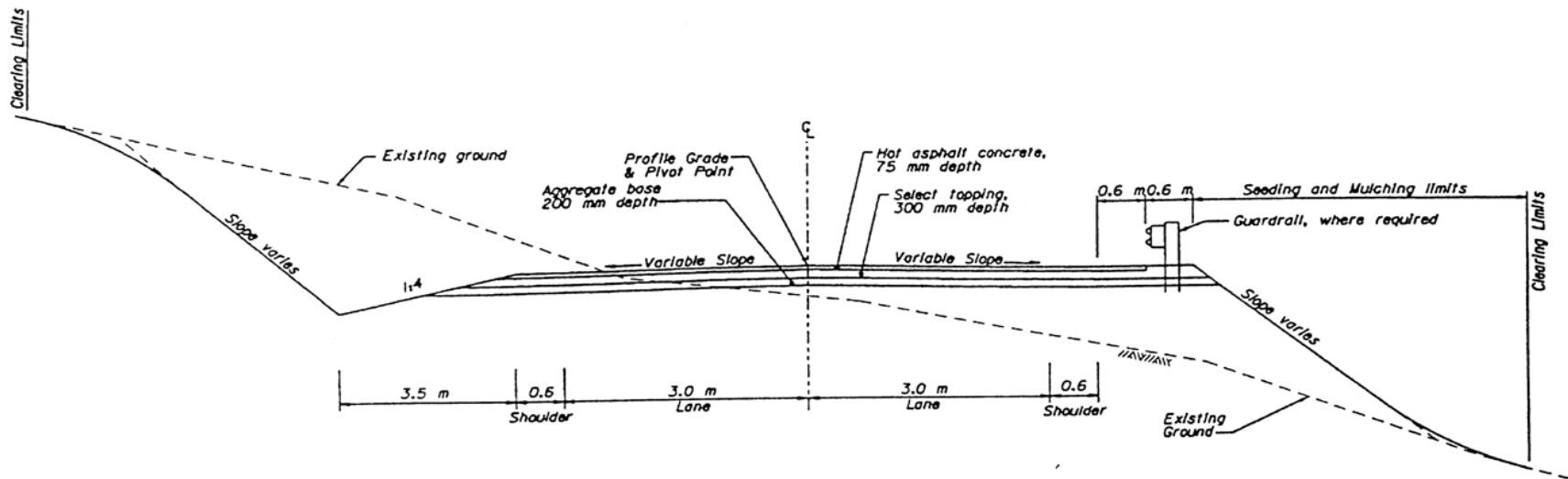




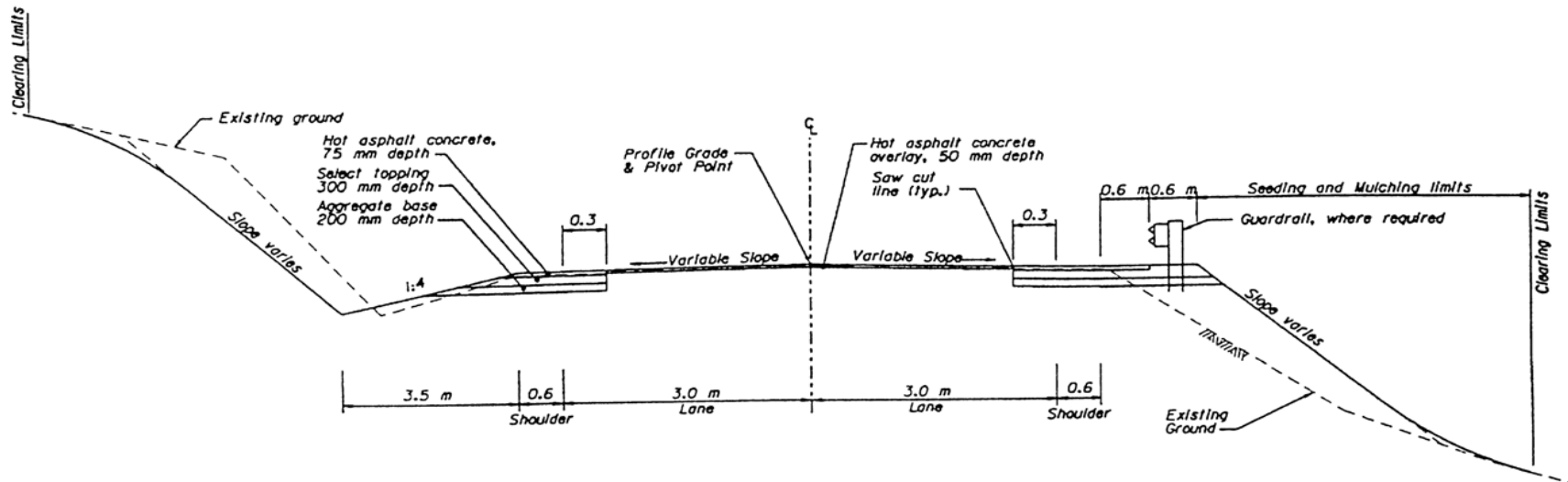


**WIND RIVER ROAD, PROJECT MAP**





**TYPICAL REALIGNMENT SECTION  
WIND RIVER ROAD**  
*Not to Scale*



**TYPICAL WIDENING SECTION  
WIND RIVER ROAD**  
*Not to Scale*

## TYPICAL SECTIONS, PROPOSED RECONSTRUCTION

## **PROJECT CHECKLIST**

Date prepared: August, 2002

### **I. PROJECT INTRODUCTION**

#### **A. Project Name and Route Identification**

Wind River Road (Forest Highway 30),  
Paradise Creek Campground to Oldman Pass, MP 20.5 to MP 25.4  
WA PFH 30-1(3)

#### **B. Lead Agency/Contact Persons**

##### **1. Lead Agency:**

Federal Highway Administration  
Western Federal Lands Highway Division  
610 East Fifth Street  
Vancouver, WA 98661-3801

##### **2. Contact Person(s):**

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(360) 619-7787

Janice L. Halvorsen, P.E.  
Highway Design Engineer  
(360) 619-7689

Steven D. Zaske  
Environmental Protection Specialist  
(360) 619-7723

##### **3. Cooperating or Partnering Agencies :**

U.S. Forest Service  
Gifford Pinchot National Forest  
10600 N.E. 51<sup>st</sup> Circle  
Vancouver, WA 98682-5419  
(360) 891-5000

Skamania County Department of  
Public Works  
P.O. Box 790  
Stevenson, WA 98648  
(509) 427-9448

Washington State Department of Transportation  
Southwest Region  
P.O. Box 1709  
Vancouver, WA 98668-1709  
(360) 905-2000

## **II. DESCRIPTION OF PROPOSED PROJECT**

### **A. Location of the Project**

The Western Federal Lands Highway Division of the Federal Highway Administration (WFLHD), in cooperation with the U.S. Forest Service (USFS), the Washington State Department of Transportation (WSDOT), and the Skamania County Department of Public Works, is planning to upgrade a segment of the Wind River Road, Forest Road 30, in the Gifford Pinchot National Forest (GPNF) in southwestern Washington. The Gifford Pinchot National Forest straddles the crest of the Cascade Range, from the Columbia River Gorge in the south to Mount Rainier National Park in the north. The proposed project is located approximately 32 kilometers (20 miles) north of the small town of Carson, in south-central Skamania County. (See Vicinity Map).

Wind River Road is a two-lane facility that begins at its junction with Washington State Route 14 (SR-14), approximately 5 kilometers (3 miles) east of Stevenson, traveling northwesterly via Carson and ending at its intersection with Forest Road 32 near Lone Butte, in north-central Skamania County. This road connects to Forest Roads 51, 90 and 25, which provide access to the Mount Saint Helens National Volcanic Monument (MSHNVN) and the northern portion of the Gifford Pinchot National Forest. Wind River Road therefore serves as the most direct southern route to the National Monument and the numerous recreational opportunities and natural resources of the National Forest. Wind River Road, at its junction with SR-14 and for the first 18 kilometers (11 miles) northbound, is a county road, but the Skamania County Department of Public Works holds a permanent easement on the route to its junction with Forest Road 51 (Curly Creek Road), and performs all of the routine maintenance on FR 30 and FR 51 to the junction with Forest Road 90, including the segment within the limits of this proposed project. From MP 11 northward, the road is owned by the United States of America and is administered by the U.S. Forest Service, within the Mt. Adams Ranger District.

Wind River Road is functionally classified as a rural collector, per the AASHTO *Policy on Geometric Design of Highways and Streets, 2000 Edition*. This manual defines the minimum design values and standards for development of highways in the U.S. Wind River Road (FR 30) is defined as a collector because it links two major east-west arterial roads; SR-14 on the south and FR 90 on the north. The proposed project begins at the Paradise Creek Campground at MP 20.5 and ends at the summit of Oldman Pass at MP 25.4, a total project length of 7.9 kilometers (4.9 miles). It follows the Wind River upstream on a steadily climbing grade averaging 7 %, beginning at an elevation of 488

meters (1600 feet) at the Paradise Creek Campground, and ending at an elevation of 922 meters (3025 feet) at the summit of Oldman Pass. This is the last remaining segment of Wind River Road between SR-14 and FR 90 that has not been improved to AASHTO standards.

## **B. Scope and Nature of the Project**

The proposed improvements will provide a wider, more uniform roadway with a more consistent alignment, upgraded drainage system and a new paved driving surface.

The major items of work on the proposed project are clearing, grading, drilling and blasting, cut and fill slope earthwork, drainage revisions, signing, guard rail installation, asphalt paving, erosion control and revegetation. Construction items are further detailed in Section IV, *Alternatives Considered*.

The project has been selected for funding under the Forest Highway portion of the Public Lands Highway Program, which is funded through the Federal Highway Trust Fund. To qualify for the Forest Highway program, a road must be designated a Forest Highway, be publicly owned, and located wholly or partly within or adjacent to a National Forest. It must serve the National Forest system, which means its existence is necessary for the protection and administration, as well as the use and development of natural resources within the National Forest.

In Washington, the FHWA, the USFS and WSDOT jointly administer the Forest Highway portion of the Public Lands Highway Program. In many rural areas, WSDOT delegates most of its administrative duties to the counties; in this case, to Skamania County. This project will receive some State Rural Arterial Trust Account (RATA) funds for preliminary engineering. TEA-21 and County funds may also be available for design and/or construction. There are no other state or federal contributions identified at this time.

## **III. PURPOSE AND NEED**

### **Road Use**

Skamania County and the Forest Service have identified Wind River Road as a top priority for improvement due to its significance as the primary north-south route from south Skamania County to the Gifford Pinchot National Forest road system and the



Mount Saint Helens National Volcanic Monument, a major attraction for tourists and significant generator of revenue for local businesses and the county. The upper Wind River drainage is popular with hunters, hikers and campers and is also becoming increasingly popular with winter sports enthusiasts, particularly for snowmobiling, cross country skiing, sledding, snowshoeing and general snow play. That has the potential to increase revenues for local businesses, the county, and the Forest Service (through user fees and permits). There are two established Sno-Park Lots and one unofficial snow play area within the limits of this project, and the Mount Adams Ranger District has recognized the need to expand and improve these recreation sites, and probably add others to accommodate the growing demand for outdoor recreation, one of the primary uses of the National Forest.

Approximately one million acres of the National Forest can be accessed from this road. Past log truck use on FH 30, concentrated during the summer months, once accounted for 30% of the total annual traffic, but logging and log truck traffic has significantly declined in recent years, now accounting for only a small percentage of overall use. The highest recreational and through traffic volumes occur during the fall, during the deer and elk hunting seasons. Directional traffic counts show that more trips are northbound than south, which indicates that Wind River Road is serving as the southern leg of a loop route into and through the National Forest.

### **Traffic Volume**

The Skamania County Department of Public Works keeps traffic data for Wind River Road, and it estimates that the traffic increases proportionately with the area's population, which is growing at an average rate of 5.8% annually. The current average daily traffic (ADT) is 115 vehicles, and that is predicted to triple to 350 in the next 20 years. The highest seasonal peak ADT was 209, recorded in October of 1999. U.S. Forest Service data on forest use indicates that the area accessed by Wind River Road generates 700,000 recreational visitor days (RVD) annually ; (one RVD is defined as one visitor staying in the National Forest for 12 hours).

### **Safety and Accidents**

Due to the relative remoteness of the project area and the minimal presence of law enforcement personnel, it is known that many accidents go unreported, especially those where no major property damage or injuries occurred. County records from 1977 to 2000 indicate 15 officially reported accidents within the limits of the proposed project during that period, but considering the popularity of fall and winter recreation in the area and the hazardous road conditions that exist with snow and ice on the roadway, it is certain that numerous other minor, single-vehicle "run off the road" and a few multiple-vehicle "fender bender" accidents are occurring. (See *Accident Info* on next page).

**Accident info on Wind River Road**  
**MP. 20.44 (N. end Paradise Cr Br)**  
**to**  
**M.P. 25.48 (25.36 is at Old Man Pass)**

<b>Date</b>	<b>Milepost</b>	<b>Direction</b>	<b>Accident info</b>
9/17/00	20.60	S. Bound	Vehicle went off road on right & into trees
2/9/86	20.62	S.Bound	Vehicle went off road due to icy conditions
9/12/86	21.80	S.Bound	Log truck lost trailer brakes & rolled over in ditch
9/2/79	22.20	Both	2 Vehicles – near head-on collision on curve
8/20/83	22.60	S.Bound	Car slid in “Gravel on Road” then off road
11/14/82	22.98	N.Bound	Driver of pickup fell asleep and into ditch
10/18/78	23.10	Unknown	Log truck roll-over
10/24/77	23.10	Both	2 Vehicles - near head-on collision on curve
8/9/83	23.40	S.Bound	Log truck into ditch on outside of curve
11/20/82	23.50	S.Bound	Car off road on curve due to snow
11/25/00	23.86	S.Bound	Car off road on curve due to snow
5/4/80	24.10	S.Bound	Pickup-Camper off road on outside of curve
10/26/84	24.16	N.Bound	Mechanic's truck off road due to inattention
7/7/94	24.70	N.Bound	Car-driver fell asleep at wheel
1/13/89	25.36	Unknown	Vehicle off road due to rain/hydroplaning

**Traffic Count Data**

<b>Date</b>	<b>Milepost</b>	<b>ADT Count</b>
Oct. 98	20.45	157
Oct. 99	20.46	209
May 98	24.00	116

**Note:** Info compiled by Richard Robinson @ Skamania County DPW  
on 8/30/2002

### **Physical and Operational Deficiencies**

The segment of roadway within the limits of this project was designed and constructed by the Bureau of Public Roads (now the Federal Highway Administration's Western Federal Lands Highway Division) in the mid-1950's. The 6.7 meter (22 feet) wide, 2-lane road was originally designed to handle primarily logging traffic. The horizontal alignment closely follows the existing topographic contours and is benched into the hillside, with large cut sections on the left and large fills on the right (traveling north, or ahead on stationing). The alignment is dominated by curves, with relatively few tangent (straight) sections. Many sharp curves restrict sight distance and safe driving speeds to 40 to 55 km/h (25 to 35 mph) and restrict passing opportunities. The design speed of the existing road (approximately 50 km/h or 31 mph, with substandard curves) is not consistent with adjacent roadway segments, which have design speeds of 70 km/h (43 mph) to the north and 80 km/h (50 mph) to the south. The sporadic log truck use of FH 30, combined with the steep (average 7 %), winding alignment, impaired sight distance, narrow roadway surface, and the discontinuities in roadway geometrics between this segment and the adjacent segments to the north and south, contribute to an increasing risk of serious accidents, and emphasize the need to improve the safety on this section of the highway to accommodate the mix of heavy trucks, RV's and passenger vehicles. The loaded trucks and larger RV's on a steep downgrade have long stopping distances and wide turning radii and their uphill climbing rate is slow compared to lighter passenger vehicles. As increasing numbers of visitors unfamiliar with the route travel to the area for its recreational opportunities, the potential for accidents will continue to steadily increase, primarily because of the size and speed differential between the trucks and passenger vehicles and the geometrics of the roadway that restrict sight distance, travel speed and passing opportunities.

Some cut sections with slopes steeper than 1.5:1 (H:V) have a tendency to ravel and erode loose material into the ditches, causing drainage blockages and subsequent winter icing when water overflows onto or across the roadway. Over time these slopes tend to form overhanging "eyebrows" at the top of the slope, where the root line of upslope vegetation meets the top of the unprotected soil cut. These eyebrows frequently release small cascades of soil, cobbles, stumps and small trees into the ditch or onto the roadway, usually as the result of extended periods of heavy rainfall or freeze-thaw cycles. Several large rock cuts near the north end of the project at Oldman Pass expose moderately weathered volcanic rock formations that are steep and ragged, resulting in a rockfall hazard, especially during the warming weather at the end of a freeze-thaw cycle. Existing ditches in these cut sections are inadequate to contain the falling rocks, and they frequently roll out into the road, creating a driving hazard.

The drainage systems on the existing roadway were designed to low-volume logging road standards and are not adequate for the current traffic volumes, mixed use of the highway and the current rate and volume of runoff. Ditches are generally narrow and

shallow and were not designed to capture and contain rockfall or eroded sediment. Without frequent and extensive maintenance, they are subject to erosion and can clog and divert runoff out into the traveled lanes, causing winter icing and year around saturation and settling of the roadway subgrade, which in turn can damage the pavement surface and increase the need for maintenance patching and overlays. By present day standards, the culverts crossing the roadway are generally undersized, causing frequent plugging and erosion, with the potential for failure. Culverts that convey perennial fish-bearing streams do not meet current standards for flood and debris conveyance or fish passage, and many are perched at one or both ends and are velocity barriers to both adult and juvenile fish. Several show signs of minor damage from abrasion and corrosion

Safety features on the existing roadway are below recommended standards for signing, superelevation of curves, stopping and passing sight distance, guard rail and pavement markings for this classification of roadway.

### **Summary**

The purpose of the proposed project is to improve the operational safety, efficiency and driveability of this segment of Wind River Road, by bringing it up to AASHTO standards. When completed, it will be comparable in width, roadway geometrics and design speed to the segments of Forest Highway 30 to the north and south. The need for the highway improvements are demonstrated by the steadily increasing average daily traffic (ADT) estimates made by Skamania County, the increasing recreational use of this part of the Gifford Pinchot National Forest reported by the U.S. Forest Service, the increasing safety risks resulting from increased use, and the desire of both public agencies and the residents of Skamania County to establish Wind River Road as the southern gateway to the Mt. St. Helens National Volcanic Monument and the interior of the Gifford Pinchot National Forest.

## **IV. ALTERNATIVES TO BE CONSIDERED**

The FHWA develops Forest Highway projects to meet the minimum standards of either the American Association of State Highway and Transportation Officials (AASHTO) or of the public road agency in charge of the route. On its larger arterial and collector roads, Skamania County has adopted AASHTO design policies and guidelines as their official geometric standards, so they will apply on Wind River Road. For a rural collector road with a current ADT less than 400 vehicles located in mountainous terrain, the minimum AASHTO standards require that the road have two 3.0 m (10 foot) lanes and 0.6 m (2 foot) shoulders for a total surface width of 7.2 m (24 feet). The FHWA does consider exceptions to design standards on a case-by-case basis if building the road to meet the design standards would cause excessive social, economic or environmental



consequences, and building the road to a reduced standard that incorporates appropriate mitigation measures would not unduly compromise the operation and safety of the facility.

The objectives of the proposed project are to complete the upgrading of this last-to-be-improved section of Forest Highway 30 by :

- Widening the roadway section from MP 20.5 to MP 25.4 to at least minimum standards and to provide a more uniform roadway for the section of FR 30 between SR-14 and Curly Creek Road (FR 51).
- Improving the alignment of several sharp curves between MP 20.5 and MP 25.4 to reduce the risk of accidents and allow drivers to safely travel at a more uniform speed from south Skamania County into the Gifford Pinchot National Forest.
- Improving or installing safety features along the highway from MP 20.5 to MP 25.4 to meet the AASHTO Roadside Design Guide recommendations.
- Improving overall surface water quality by upgrading drainage systems and mitigating erosion on exposed soil surfaces.

*The following alternatives were jointly developed by FHWA, the U.S. Forest Service and Skamania County:*

### **1. No Action**

Under this alternative, nothing would be done to reduce or correct identified deficiencies, and only routine maintenance activities would occur. This alternative would have only minimal environmental impacts, but existing surface erosion and downstream sedimentation would continue to affect water quality and several culverts would remain impassable to fish. This alternative fails to meet any of the purposes or needs for the proposed project, perpetuating safety, roadway geometric, drainage, fish passage and slope stability deficiencies.

### **2. 3R - Resurfacing, Restoration and Rehabilitation; No Widening**

Under this alternative, the roadway surface would be rehabilitated and repaved to the existing width of approximately 6.7 meters (22 feet). Existing ditches would be restored

to the original shape and slope by regrading, but not widened ; subsurface and cross drainage would be improved ; slopes would be stabilized ; superelevation would be corrected ; existing turnouts would be paved and delineated where appropriate ; and signs, pavement markings and guard rail would be installed to meet current standards. Sight distance at approach roads would be improved where possible, usually by clearing vegetation and/or minor slope flattening.

This alternative would have limited environmental impacts, localized to the existing roadway corridor. Restoration of existing ditches, sight distance slope flattening, grading and drainage excavations could lead to minor, short-term erosion problems and the potential for introducing noxious weeds, associated with the disturbance of existing vegetated slopes and roadsides. Overall impacts to wildlife habitat would be minimal, and fish passage and habitat would be improved in the long term by replacement of stream culverts and stabilization of steep, erodible slopes.

The principal disadvantage of this alternative is that no improvements would be made to the narrow roadway width or the substandard design speed. Currently, the road is below the minimum standard width of 7.2 meters (24 feet) for this class of roadway. There are recognized safety problems, including the occurrence of “frost pockets”, and numerous sharp, low-speed curves with substandard superelevation rates.

This alternative fails to meet several important portions of the purpose and need for this project, as described above.

The estimated construction cost for this alternative is \$2,300,000 (in year 2002 dollars).

### **3. Reconstruction -Widening Only**

Under this alternative, the road would be reconstructed to 7.2 meters (24 feet) with no alignment improvements. The road would be reconstructed along the existing alignment, widening on one or both sides (as appropriate) to minimize environmental impacts. The width of the reconstructed road would be consistent with the AASHTO *Rural Collector* standard widths for an ADT of less than 400 vehicles per day in mountainous terrain. In addition to widening the road, cut and fill slopes would be reconstructed and stabilized as appropriate, drainage problems would be fully addressed, roadside turnouts and interpretive facilities would be upgraded and paved where appropriate, guard rail would be installed to current standards, signs and pavement markings would be upgraded, sight distance at approach roads would be improved, and left turn lanes would be constructed if needed.

This alternative would have some moderate environmental impacts, primarily associated with the earthwork widening of cut and fill slopes, grading and drainage excavations. The widening and grading would require clearing of roadside vegetation that provides wildlife habitat, visual aesthetics, and biofiltration for downslope receiving waters that contain fish.

This alternative fails to meet one of the primary purposes and needs of this project by not improving the substandard alignment or increasing the design speed, leaving this roadway segment discontinuous with adjoining segments to the north and south.

The estimated construction cost for this alternative is \$4,750,000 (in year 2002 dollars).

#### **4. Reconstruction, Widening and Partial Realignment**

Under this alternative, the road would be reconstructed to 7.2 meters (24 feet) as well as partially realigned to achieve most of the AASHTO minimum safety standards for rural collectors in mountainous terrain. However, due to the steep existing grades (7 % average), cost, and physical and environmental constraints (stream crossings, old-growth timber, wetlands, wildlife habitat ), the desired design speed can only be achieved on approximately 50% of the existing substandard curves. Some of the substandard curves can not be feasibly straightened because the resulting roadway segment would have grades exceeding the AASHTO recommended maximum of 10 %. Some will not be corrected because of the exorbitant cost of moving massive quantities of earth and rock and/or disturbing critical habitat such as streams and intact stands of mature conifer timber that are managed as Late Successional Reserves (LSR's) under the Northwest Forest Plan. It is therefore assumed under this alternative that approximately 3.2 km (2 miles) of the 7.9 km (4.9 mile) project would be realigned to the desired 70 kph (43 mph) design speed. The remaining 4.7 km (2.9 miles) would be widened and upgraded similar to the criteria described in "*Reconstruction - Widening Only*" above.

This alternative would have more substantial roadside disturbance, and clearing and grubbing of presently undisturbed timber and understory vegetation in the curve realignment sections. Environmental impacts would be incrementally greater than the other alternatives, with larger areas of timber and other vegetation cleared, more riparian zone and wetland disturbance, and more exposed, erodible soil surfaces.

The curve realignments proposed cannot achieve the desired minimum AASHTO design speed for all the substandard curves within the project limits, but represent a substantial improvement over existing conditions. A design exception would be required, and the remaining curves would need to have improved superelevation rates, proper warning

signs, and upgraded pavement markings and safety devices installed.

This alternative meets nearly all of the objectives and the purpose and need for this project, within the limits of practicability.

The estimated construction cost for this alternative is \$5,500,000 (in year 2002 dollars).

(See: Typical Sections, Proposed Reconstruction).

## **V. AFFECTED ENVIRONMENT**

### **A. Natural**

#### **1. Geomorphology** (terrain, geology, water resources, drainage areas):

The project area is located on the west slope of the Cascade Range in southwestern Washington, in the Wind River drainage basin of south-central Skamania County. Wind River is a Columbia River tributary, and the project lies 33 to 41 kilometers (20 to 25 miles) upstream (north) of the confluence of the two rivers. The mouth of Wind River is located in the Columbia River Gorge, a 130 kilometer (80 mile) long, 3.2 kilometer (2 mile) wide canyon cut through the Cascade Mountains by the post-Ice Age Columbia River in a series of catastrophic floods known as the Spokane or Lake Missoula Floods, caused by the formation and subsequent failure of a succession of ice dams in the Clark Fork River near where it enters present day Lake Pend Oreille in the Idaho panhandle. The same series of epic floods carved out the Channeled Scablands of the northern and eastern Columbia Basin and changed the course of the Columbia River several times before it stabilized in its present location. Almost all of the flat to gently sloping ground within the Columbia River Gorge and its tributary valleys, (including the lower reaches of Wind River), are formed on flood deposited alluvium, stratified in layers depicting the succession of flood and ice dam events, each producing backwater lakes where sediment accumulated.

Wind River originates at McClellan Meadows in the Cascade Range and flows southward through a deep, narrow, steep-walled valley incised into the alternating layers of flood deposits and volcanic rock and ash. Since the river valley was formed, it has been backwatered numerous times by the succession of Lake Missoula Floods, each event leaving behind alluvial deposits forming benches, terraces and flats along the riverbanks, getting progressively wider and flatter as one travels downstream. Geological records show that a lava flow once came down the Wind River valley and



actually dammed up the Columbia River for a time, before being eroded away. The town of Stevenson, about 8 km (5 miles) downstream from the lava dam, now sits on an alluvial fan composed of material eroded from it, then subsequently overlaid with more layers of Lake Missoula flood deposits.

This project begins near the entrance to the Paradise Creek Campground near the mouth of Paradise Creek, at MP 20.5 on Forest Highway 30, in the Gifford Pinchot National Forest. It follows the west bank of Wind River, ascending the steep canyon slope to the project's northern terminus at the summit of Oldman Pass at MP 25.4. Over its 7.9 km (4.9 mile) length, the road climbs 432 meters (1425 feet) at an average grade of 7 %, from a beginning elevation of 485 meters (1600 feet) at Paradise Creek Campground to an ending elevation of 917 m (3025 feet) at the summit of Oldman Pass. For much of this alignment, the highway is bench cut into the steep slopes of the Wind River canyon through volcanic deposits ranging from solid bedrock to pyroclastic deposits of ash and pumice, and old alluvial and glacial outwash material, ranging from fine silty clay to large boulders. Confined as it is to this narrow bench high above the river, the roadway by necessity follows the contours of the side slope, giving it a very sinuous alignment with a number of sharp curves and very few tangent (straight) sections.

The highway crosses four perennial streams and a number of small, intermittent drainages within the project limits, all tributary to Wind River, and all conveyed under the roadway through metal culverts. As one travels north on FH 30, the road gets progressively farther away from Wind River, and in places is as much as 2 km (1.2 miles) west of the river. At the project's northern terminus at Oldman Pass, the road crosses the natural divide between the Wind and North Fork Lewis River drainage basins, with the Lewis River tributaries flowing north, and the Wind River and its tributaries flowing to the south.

## **2. Climate**

The climate in the project area is marine temperate, with cool, wet winters and mild, dry summers. The proximity to the Columbia River Gorge and the differences in elevation between the south and north ends of the project produce some variations in average temperature and precipitation from that typical of the Puget-Willamette Trough to the west. Winters tend to be colder and snowfall amounts greater, and summers tend to be cooler and wetter than the inland valleys to the west. This same trend applies as the road gains elevation from south to north; from warmer and drier to cooler and wetter. The average precipitation in the project area is 229 cm (90 inches) annually, with a significant portion of the winter precipitation falling as snow at elevations above 600 meters (2000 feet). The average winter temperatures range between - 4 and 1.7 degrees C (25 and 35 degrees F), and summer temperatures average between 15 and 21 degrees C (60 and 70

degrees F). The wet season typically occurs between November and April, and the driest period is July through early October.

### **3. Vegetation**

The dominant vegetation throughout the project area is mixed coniferous forest, with Douglas fir the dominant species and western hemlock and western red cedar as co-dominants at elevations below 600 m (2000 feet). Above 600 m, western hemlock becomes the dominant tree species, with Douglas fir as a co-dominant. As elevations approach 915 meters (3000 feet), near Oldman Pass, increasing numbers of true firs ( noble fir, Pacific silver fir) begin to intermix with the dominant western hemlock as the Douglas fir diminishes. Typical understory species include vine maple, huckleberry, salal, sword fern and Oregon grape. Vegetation typically found along stream courses is predominantly deciduous, dominated by red alder and bigleaf maple, with black cottonwood and willows on the wetter sites. Streambanks often grow dense thickets of shrubs like salmonberry, red-osier dogwood, Pacific ninebark and several species of willows. Several small wetlands, located in stream or spring-fed topographic basins crossed by FH 30, are seasonally or permanently saturated and some have patches of skunk cabbage, lady fern, and sedges, often fringed with salmonberry, Sitka alder and devil's club.

The conifer forests along the project route contain stands of varying ages, but mature second-growth is prevalent, with a few remnant stands of \*old-growth present (designated under the Northwest Forest Plan as \*Late Successional Reserve (LSR) by the U.S. Forest Service), interspersed with a few clearcuts between five and 30 years old, now supporting primarily Douglas fir plantations. Entering the upper montane zone, (Above 610 m or 2000 feet) plants like huckleberries begin to dominate the understory and appear in dense stands along the forest edges and in open areas, along with a few scattered tufts of beargrass, elk sedge and some species of sub-alpine wildflowers, as one approaches 3000 feet in elevation near the summit of Oldman Pass.

### **4. Wildlife**

Wildlife is abundant in the Gifford Pinchot National Forest, and in the Wind River drainage basin. The mixed conifer forest with its many deciduous riparian zones, combined with the gradual transition from low-elevation forest into the upper montane zone as one travels north, or upslope, on Forest Highway 30 provides a great diversity of wildlife habitats, as well as many overlapping transition zones between them. Some of the most common terrestrial species found in the immediate project vicinity include: Roosevelt elk, black-tailed deer, black bear, bobcat, cougar, coyote, raccoon, beaver,

skunk, porcupine, forest bats, Douglas squirrel, pika, mountain beaver, Townsend's chipmunk, and numerous smaller rodents. Wetlands, riparian areas and the damp forest itself support numerous species of frogs, salamanders, snakes, slugs, snails and insects.

Bird species found in the forest include owls, northern goshawk, raven, bandtailed pigeon, jays, forest grouse, woodpeckers, bald eagle, turkey vulture, many species of songbirds, and both migratory and resident waterfowl along the streams, ponds and lakes in the area.

### **Threatened, Endangered and Sensitive Species**

The only species listed as endangered under the ESA is the gray wolf. There is a very low likelihood of gray wolves in the project vicinity because of the relatively high road density, and the easy access these roads provide for humans and their vehicles. Wolves tend to seek out den sites that are secluded and far removed from roads and other human disturbances, and to hunt where prey is most abundant, (where road densities are lowest).

The following are listed as threatened under ESA: grizzly bear, Canada lynx, bald eagle, northern spotted owl, and designated spotted owl habitat. The grizzly bear is unlikely to inhabit this part of the National Forest. It prefers high elevation sub-alpine and alpine habitats for den sites, and large tracts of land undisturbed by humans or roads, high prey densities and optimal forage areas. In the Cascades, sub-alpine fir forests and other closely associated forest types, generally above 4,000 feet in elevation, are believed to provide primary lynx habitat. This project will not affect any habitat suitable for lynx, and this species has been dropped from further analysis. Bald eagles prey primarily on fish, waterfowl and carrion, and prefer to nest in close proximity to large streams and lakes. In the winter they roost communally where they have thermal cover and a prey source nearby. The upper Wind River's fish stocks are in serious decline, and there are no large lakes nearby that attract large numbers of migratory or resident waterfowl, so the eagles preferred prey species are relatively scarce. Eagles have been seen feeding in the lower Wind River drainage during the chinook salmon spawning season in August and September, but no nests have been located in the upper watershed. Winter communal roosts are likely to occur downstream of the project location. Spotted owls inhabit the upper Wind River watershed, and nests and activity centers are known to be in the general project vicinity. Two spotted owl activity centers are located within 400 meters (1/4 mile) of one of the preliminary alignment alternatives.

The following are listed as sensitive under ESA: great gray owl, Pacific fisher and California wolverine.

## 5. Fish

Historically, the lower main stem of Wind River supported chinook, chum and coho salmon, steelhead, and coastal (sea-run) cutthroat trout, as well as numerous species of small baitfish. Shipherd Falls, located 3 miles upstream from the mouth of the Wind River and 22 miles downstream from this project, was an impassable barrier to all salmonids except steelhead. Summer-run steelhead were dominant and numerous above this natural barrier. In 1938, the Carson National Fish Hatchery was constructed to mitigate for the construction of Bonneville Dam. At that time a fish ladder was also constructed at Shipherd Falls to allow salmon access to the fish hatchery, located at river mile 18. The hatchery currently produces 1.2 million spring chinook salmon smolts annually. From the 1960's until 1998, the Washington Department of Fish and Wildlife (WDFW) raised and released hatchery steelhead smolts into the Wind River system, but discontinued the stocking in 1998 due to the risk of hybridization with native steelhead.

In 1951, the summer steelhead run was estimated at 3,250 with an escapement of 2,500 spawners. The current number of wild steelhead spawning in the Wind River basin has been reduced to approximately 100 adults in recent years. A fall run of wild chinook salmon that once dominated the lower reach of the river is now depressed and consists of mostly stray hatchery fish.

In 1936, U.S. Bureau of Fisheries surveys identified cutthroat trout in many of the Wind River tributaries. However, snorkeling and electro-fishing surveys by the U.S. Forest Service, WDFW and the U.S. Geological Survey (USGS) between 1984 and the present have not found any cutthroat trout upstream from Shipherd Falls. Only three cutthroat smolts have been trapped in the last five years in the lower Wind River smolt trap located at river mile 1. These smolts are believed to have originated in the Little Wind River or the main stem Wind River below Shipherd Falls.

These anadromous fish losses have been attributed to the construction of Bonneville Dam (1938), timber harvest, and rural development in the upper watershed (WDW, et al., 1990). These activities in the upper watershed have severely impacted riparian areas and stream channels in several key steelhead subbasins. This is evidenced by maximum water temperatures exceeding 75 degrees F (24 degrees C), risk of increased peak flows and increased sedimentation (USFS, 1996). There are also concerns about the ecological and genetic risks posed by the anadromous hatchery programs, (which prompted the previously mentioned suspension of the steelhead stocking program by WDFW).

Coho and chum salmon have not historically and do not presently occur above Shipherd Falls.

Wind River does not appear to have any suitable habitat for bull trout, and none have been observed in the river or any of its tributaries.

### **Threatened, Endangered, Proposed, Candidate or Sensitive Species**

In 1992, the American Fisheries Society rated summer and winter steelhead at a moderate and high risk of extinction, respectively, and they listed the sea-run cutthroat trout as extinct ( Nehlsen, 1991). In 1997, the WDFW rated the Wind River summer run steelhead as critical. The National Marine Fisheries Service (NMFS) listed steelhead trout as a threatened species under the Endangered Species Act (ESA) within the Lower Columbia River evolutionary significant unit (ESU), a distinct population of Pacific salmonids. The Lower Columbia River ESU includes the Wind River and its tributaries, including the upper Wind River subbasin where the proposed project is located. Due to the status of this stock, the Wind River summer steelhead has the highest priority for restoration in the State of Washington's Lower Columbia Steelhead Conservation Initiative.

The introduced Carson Hatchery spring chinook salmon found above Shipherd Falls are not included as part of the Lower Columbia River ESU. The threatened "tule" fall chinook salmon in Wind River, which are included in the ESU, are restricted to the lower reach of the river below the falls. Their critical habitat is likewise restricted to the lower reach of the river below Shipherd Falls.

The threatened Columbia River chum salmon do not occur above the falls and NMFS excluded areas upstream from Bonneville Dam as critical habitat.

The proposed Lower Columbia River/Southwest Washington coho salmon do not occur above Shipherd Falls, nor does their critical habitat.

Threatened Columbia River bull trout have not been found in the Wind River, and their critical habitat does not appear to be present.

See **Table 1** below for preliminary effects determinations on Threatened and Endangered Fish species:

Table 1 Summary of PRELIMINARY determinations for the Wind River Road Realignment						
	Pre-field Review	Field Recon.	Alternatives A (1) No Action	B (2)	C (3/4)	
Fish Species	Existing Sightings / habitat	Habitat or Species Present	(PET) - No Effect / May Affect LAA/NLAA/NLJ (S) - No Impact / May Impact (With Mitigations)			
<b>ENDANGERED/ THREATENED</b>						
Columbia River bull trout	No	No	No Effect	No Effect	No Effect	
Lower Columbia River steelhead trout	Yes	Yes	NLAA	NLAA	NLAA	
Lower Columbia River steelhead trout critical habitat	Yes	Yes	NLAA	NLAA	NLAA	
Middle Columbia River steelhead trout	No	No	NA	NA	NA	
Lower Columbia River Chinook	No*	No*	No Effect	No Effect	No Effect	
Lower Columbia River Chinook Salmon critical habitat	No	No	No Effect	No Effect	No Effect	
Puget Sound Chinook	No	No	NA	NA	NA	
Columbia River chum	No*	No*				
Columbia River chum salmon critical habitat	No	No	No Effect	No Effect	No Effect	
<b>CANDIDATE OR SENSITIVE SPECIES</b>						
Lower Columbia River/Southwest Washington coho	Yes*	No	No Impact	No Impact	No Impact	
Interior Red Band Trout	No	No	No Impact	No Impact	No Impact	
Pygmy Whitefish	No	No	No Impact	No Impact	No Impact	

Note: Blank spaces above indicate steps that were not necessary to complete the evaluation \* = These species are found only in the lower three river miles of the Wind River below Shipberd Falls, 22 river miles below the project area.



## **B. Cultural**

### **1. Land Use, Economics and Social**

The Gifford Pinchot National Forest, originally established as the Mt. Rainier Forest Reserve in 1897, became the Columbia National Forest in 1908, and was later renamed for Gifford Pinchot, the first Chief of the U.S. Forest Service, in 1949. From the early 1900's until the 1980's, the primary land use on the Gifford Pinchot, and most other national forests of the Pacific Northwest, was logging. Millions of board feet of Douglas fir, western hemlock and western red cedar timber was hauled to local sawmills, most of it during the post-World War II housing boom in the Pacific Northwest. Because more than 85% of the land area of Skamania County is in State and Federal ownership as timberlands, probably no other county in the state of Washington was ever more dependent on the timber industry. Once one of the wealthiest (per capita), and now among the most economically depressed, (following the collapse of the timber industry on the heels of market downturns and dwindling supplies), Skamania County today still struggles to find replacement sources of revenue. Timber sales in the Gifford Pinchot National Forest are now only a small fraction of what they were in the heyday 1950's through 1980's, and the timber sold annually from the portion of the GPNF accessed by Wind River Road is only enough to keep one or two small local sawmills working for a few months out of the year. The remainder of their timber supply at this time comes from State and private lands.

Skamania County has a comparatively small population for its physical size and an equally small tax base, but to keep its infrastructure intact, it hopes to capitalize on its outstanding natural beauty, its rich and interesting geologic, natural and cultural history, and its great potential for outdoor recreation. As a political entity, it sees improvements to its transportation system as one means to that end, and since the eruption of Mt. St. Helens ( which is in northwestern Skamania County) in 1980, it has sought to open up a southern “gateway” to the Mt. St. Helens National Volcanic Monument.

The lions’ share of the tourist revenue generated by visitors to the volcano has been going to neighboring Cowlitz and Lewis Counties, primarily because they have major, heavily traveled highways with direct access from the west and the north, respectively, as well as the businesses already established along those routes. The county sees the proposed improvements to Wind River Road as a “missing link” in its plans for a southern “gateway” to Mt. St. Helens. It also recognizes the potential revenue that could be generated by attracting more visitors to the rest of the National Forest, but it too is best accessed via Forest Highway 30, the most direct route to the interior of the GPNF from the south. (See the *Gateway Route to Mt. St. Helens* map in the front of this document).

## **2. Historical and Archaeological**

Archaeological evidence suggests that the lower and middle reaches of the Columbia River Gorge and its tributary drainages have been occupied by Native Americans for at least the last 9,000 years, and quite possibly longer than that.

We know that by the time the first European explorers traveled up the Pacific Coast and then up the Columbia River in the late 1700's, local Native Americans were well established in the area, with numerous permanent villages, seasonal camps and a far-reaching, sophisticated trading network that traveled overland via several major trail systems and by canoe on the river systems. The Columbia River tribes traded furs, fish and raw materials with the inland tribes for tool-making materials, cloth, beads, horses and other trade goods obtained from other Euro-Americans to the east and south.

It was not long after the Lewis and Clark expedition that Euro-American trappers and traders began to arrive in the Pacific Northwest. The Hudson's Bay Company, a British trading firm, established Fort Vancouver in 1825 and remained in the fur trading business there until 1849, when the U.S. Army purchased the property in the wake of the influx of pioneers coming west via the Oregon Trail. Settlers soon spread out beyond the Willamette and Columbia River valleys to begin farming and logging in the project area, and the advent of the railroads and steamboats sparked a number of small towns at railheads and river landings, including Stevenson, Skamania and Home Valley. Logging camps like Carson, Willard, and North Bonneville (then known as Moffett's Hot Springs) grew into towns with the coming of the North Bank Railway, soon to become the Spokane, Portland and Seattle (SP&S) Railroad. Not long after the railroad came the highway that became State Route 14, and with better transportation came more efficient movement of goods to market. For Skamania County, that meant timber, which was the backbone of its economy until the recent downturn in the wood products industry.

There are three recorded cultural or historical sites within the immediate proximity of the proposed project corridor, one prehistoric and two relatively recent (19<sup>th</sup> and 20<sup>th</sup> century). Two are Native American in origin and one Euro-American. None of the sites are expected to be directly impacted by the proposed improvements to Forest Highway 30.

(See: Professional Review - Heritage Resource Survey Report, Appendix A)

## **VI. INTERRELATIONSHIPS WITH OTHER USES AND JURISDICTIONS**

### **A. Land Ownerships (General)**

All of the land within the limits of this project is owned by the United States of America and is administered by the U.S. Forest Service as part of the Gifford Pinchot National Forest. The Skamania County Department of Public Works holds an easement on this portion of Forest Highway 30, the Wind River Highway, and maintains the roadway and its appurtenances year-around. The existing easement varies in width, but averages 18.3 meters (60 feet). There are no permanent structures or utilities located within or adjacent to the easement.

### **B. Planning by Others**

The Skamania County Department of Public Works has prioritized this project and has added it to its list of projects eligible for State and and/or Federal matching funds under the Rural Arterial Trust Account (RATA) and the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). The Wind River Road is rated number one in the Gifford Pinchot Travel Management Plan as a route designated for improvements by the U.S. Forest Service. Natural resources in the route vicinity are under the guidelines of the Northwest Forest Plan, which requires the gathering of data and examination of potential impacts to key indicator species of plants and animals (“survey and manage species”) as a measure of overall forest health. This project has been selected by the U.S. Forest Service, FHWA, and the Washington State Department of Transportation, (known collectively as the Tri-Agencies), as an eligible project under the Forest Highway Program, which provides the primary federal funding for the project. The Curly Creek Road project, located approximately 4.8 kilometers (3 miles) north of Oldman Pass, was reconstructed under the Forest Highway Program and completed in the summer of 2000. It serves as one of the northern legs of the Mt. St. Helens “gateway” route. There are also future plans to upgrade a portion of Forest Highway 90, the main east-west arterial through the GPNF, to provide improved access to the Mt. St. Helens National Volcanic Monument and the interior of the National Forest as a part of the southern gateway concept.

**C. Will Any of the Following Environmental Legislation and Requirements Be Affected By the Proposal ?**

	<u><b>YES</b></u>	<u><b>MAYBE</b></u>	<u><b>NO</b></u>
1. Coastal Zone Management Act	___	___	<u><b>X</b></u>
2. Executive Order 11988 (Floodplains)	___	___	<u><b>X</b></u>
3. Executive Order 11990 (Wetlands)	<u><b>X</b></u>	___	___
4. National Historic Preservation Act, Section 106	___	<u><b>X</b></u>	___
5. Farmland Protection Policy Act (Prime and Unique Farmland)	___	___	<u><b>X</b></u>
6. Land Use Requirements	___	___	<u><b>X</b></u>
7. Section 4(f), DOT Act of 1966	___	___	<u><b>X</b></u>
8. Endangered Species Act	<u><b>X</b></u>	___	___
9. Highway Improvements in the Vicinity of an Airport	___	___	<u><b>X</b></u>
10. Fish and Wildlife Coordination Act	<u><b>X</b></u>	___	___
11. Clean Water Act/ Safe Drinking Water Act	<u><b>X</b></u>	___	___
12. Wild and Scenic Rivers Act	___	___	<u><b>X</b></u>
13. Clean Air Act	___	___	<u><b>X</b></u>
14. Hazardous Waste Regulations	___	___	<u><b>X</b></u>
15. Noise Regulations	___	___	<u><b>X</b></u>

**Comments:** If Alternatives 3 (Reconstruction-Widen Only) or 4 (Reconstruction, Widen and Realignment) are selected for construction, there will be some minor wetland impacts. Alternative 4 will impact approximately twice the area of wetlands affected by Alternative 3. Informal consultation under Section 7 of the ESA may be required with the U.S. Fish and Wildlife Service (FWS) regarding northern spotted owls and with the National Marine Fisheries Service (NMFS) regarding steelhead trout. If Alternatives 3 or 4 are selected for construction, a National Pollutant Discharge Elimination System (NPDES) Permit will be required because more than 5 acres of land that generates runoff into the Wind River drainage will be disturbed. The NPDES Permit is obtained from the EPA on Federal lands.

#### **D. Potential Permits Required**

- |  | Y            | Maybe | N            |
|--|--------------|-------|--------------|
| 1. <b>Surface Mining Reclamation Permit</b><br><i>[Required for new pit sites on <u>non</u>- Federal Land . Issued by WDNR.]</i>   | ( )          | ( )   | ( <b>X</b> ) |
| 2. <b>Hydraulic Project Approval</b><br><i>[For work within ordinary high water - WA State Fish &amp; Wildlife.]</i>   | ( <b>X</b> ) | ( )   | ( )          |
| 3. <b>Shoreline Management Substantial Development Permit</b><br><i>[For work within 200' of OHW on <u>non</u>-Federal lands.]</i>   | Y            | Maybe | N            |
|  | ( )          | ( )   | ( <b>X</b> ) |
| 4. <b>NPDES Permit</b><br><i>[When clearing more than 5 acres is required to build the project. Submit NOI to EPA on federal lands and Ecology on other lands.]</i>          | Y            | Maybe | N            |
|  | ( <b>X</b> ) | ( )   | ( )          |
| 5. <b>Section 404 Permit - Individual or Nationwide</b><br><i>[Issued by Corps when project involves filling or dredging in "waters of the U.S.", including wetlands]</i>    | Y            | Maybe | N            |
|  | ( <b>X</b> ) | ( )   | ( )          |
| 6. <b>Water Quality Certification</b><br><i>[Issued by Ecology when water quality may be degraded. Normally associated with 404 permit, but may take separate approval.]</i> | Y            | Maybe | N            |
|  | ( <b>X</b> ) | ( )   | ( )          |

- |   |  |
|---|--|
| <p>7. <b>Waste Disposal Discharge Permit</b> (See NPDES)<br/> <i>[Rarely used for highway projects]</i></p>   | <p>Y   Maybe   N<br/>         (   )   (   )   (<b>X</b>)</p> |
| <p>8. <b>Forest Practices Permit</b><br/> <i>[Issued by WDNR when project may convert forest land to other uses. Only required on <u>non</u>-Federal lands.]</i></p>                | <p>Y   Maybe   N<br/>         (   )   (   )   (<b>X</b>)</p> |
| <p>9. <b>USFS Special Use Permit</b><br/> <i>[ Required for the extraction, stockpiling or disposal of road building materials, equipment staging areas, etc. on NF lands.]</i></p> | <p>Y   Maybe   N<br/>         (   )   (<b>X</b>)   (   )</p> |

## VII. ENVIRONMENTAL IMPACTS

*[For each question the extent of the anticipated impact is estimated to be high(H), Medium (M), low (L), or not applicable (N/A). For high or medium impacts, comments elaborate on the impacts, list proposed mitigation and mention any substantial differences in alternatives]*

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>A. Earth</b> - Will the proposal result in :				
1. Unstable earth conditions or changes in geologic substructure?	___	___	___	<u><b>X</b></u>
2. Disruptions, displacement, compaction, or overcovering of the soil?	___	<u><b>X</b></u>	___	___
3. Change in topography or ground surface relief features?	___	___	<u><b>X</b></u>	___
4. Destruction, covering, or modification of any unique geologic or physical feature?	___	___	___	<u><b>X</b></u>
5. Any increase in wind or water erosion of soils either on or off the site?	___	___	<u><b>X</b></u>	___

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
6. Changes in deposition or erosion of beach sands which may modify any marine waters?	___	___	___	<u>X</u>
7. Changes in siltation, deposition, or erosion which may modify the channel of a river, or stream, or the bed of a lake?	___	___	<u>X</u>	___
8. Placing fill below the ordinary high watermark of rivers or streams, including intermittent streams?	___	<u>X</u>	___	___

**Comments:** For Alternatives 1 (No Action) and 2 (3R- No Widening), earthwork will be minimal. Only routine maintenance on ditches and slopes immediately adjacent to the existing roadway will be performed under the No Action alternative. Minor earthwork for slope stabilization, drainage and sight distance clearing will be performed under the 3R alternative, again immediately adjacent to the existing roadway. Alternative 3 (Reconstruction - Widen Only) will increase the height and width of existing cut slopes and place new fill material necessary to widen the existing roadway prism from its present 22 feet to a 24-foot top width. Drainage systems will be replaced and exposed soils will be replanted on cuts, fills and streambanks. Some slopes will be flattened and vegetation cut back to improve sight distance, mostly on the inside of curves. Alternative 4 (Reconstruction, Widening and Realignment) will cut back existing slopes, place new fill material and drainage systems as described for Alternative 3, but it will also clear new right of way, place fill material and cut some large slope areas to realign a number of sharp curves. Sections of existing roadway abandoned by the new alignments will be obliterated by removing the existing roadbed, recontouring and replanting. All existing drainage structures will be replaced, new ones will be installed in the realignment sections, and abandoned drainage structures will be removed and streambeds restored to their original contours, on both perennial and intermittent streams. It is estimated that approximately twice as much earthwork will be required to construct Alternative 4 as would be necessary for Alternative 3. Appropriate best management practices (BMP's) will be used to minimize erosion potential and protect water quality throughout the project.



H      M      L      N/A

**B. Air - Will the proposal result in :**

- |   |     |     |          |          |
|---|-----|-----|----------|----------|
| 1. Air emissions or deterioration of ambient air quality?             | ___ | ___ | <u>X</u> | ___      |
| 2. The creation of objectionable odors ?                              | ___ | ___ | <u>X</u> | ___      |
| 3. Alteration of air movement, or any change in a local microclimate? | ___ | ___ | ___      | <u>X</u> |

**Comments:** There will be some minor, short-term dust and emissions of diesel exhaust from heavy equipment and trucks during work hours on weekdays. Paving will produce some brief, minor odors of asphalt near the end of the construction project. Dust will be controlled by periodically spraying water on exposed soils in haul route areas. Exhaust emissions and asphalt odors will dissipate rapidly with the prevailing breezes common to the area.

H      M      L      N/A

**C. Water - Will the proposal result in:**

- |  |     |          |          |          |
|--|-----|----------|----------|----------|
| 1. Changes in currents, or the course of water movements in either marine or fresh waters?         | ___ | ___      | <u>X</u> | ___      |
| 2. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff? | ___ | ___      | <u>X</u> | ___      |
| 3. Alterations to the course or flow of flood waters?  | ___ | ___      | ___      | <u>X</u> |
| 4. Change in the amount of surface water in any water body?  | ___ | ___      | ___      | <u>X</u> |
| 5. Discharge into surface waters or any potential alteration of surface water quality?             | ___ | <u>X</u> | ___      | ___      |

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
6. Alteration of the direction or rate of flow of groundwaters?	___	___	___	<u>X</u>
7. Change in the quantity of groundwaters either through direct additions or withdrawals or through interception of an aquifer by cuts or excavations?	___	___	___	<u>X</u>
8. Deterioration in groundwater quality through injection or seepage?	___	___	___	<u>X</u>
9. Reduction in the amount of water otherwise available for public water supplies?	___	___	___	<u>X</u>
10. Encroachment into a 100-year floodplain or regulated floodway?	___	___	___	<u>X</u>

**Comments:** Culvert replacements will slightly alter currents and the course of stream flows. Alternative 4 will install new culverts and remove old ones where realignments occur, changing the location of stream crossings and restoring streambeds where old roadway segments are obliterated. Alternatives 2, 3 and 4 all have the potential for discharges to surface waters resulting from erosion. Alternative 2 has the least earthwork and therefore the least potential, Alternative 3 an intermediate amount, and Alternative 4 has the most earthwork and the greatest potential for discharges of sediment to surface waters.

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>D. Wetlands</b> - Will the proposal cause:				
1. Filling or excavating in designated wetlands?	___	<u>X</u>	___	___
2. Alteration of hydrology?	___	___	<u>X</u>	___
3. Any other change to wetland areas?	___	<u>X</u>	___	___

**Comments:** Alternatives 3 and 4 will have minor impacts on several small wetlands adjacent to the existing roadway, and Alternative 4 may impact one or more additional wetlands where the roadway is realigned. None of the impacts are expected to be large in surface area nor significant in terms of the overall function of the ecosystem. Some of the impacts of Alternative 4 could be mitigated by restoring wetland areas where old roadway segments are obliterated. Wetland hydrology could be slightly altered in some locations by the displacement and diking effects of roadway fill material.

H   M   L   N/A

**E. Flora** - Will the proposal result in:

- |  |     |                 |                 |     |
|--|-----|-----------------|-----------------|-----|
| 1. Change in the diversity or numbers of any species of flora?         | ___ | ___             | <u><b>X</b></u> | ___ |
| 2. Potential introduction of new species of flora in the project area? | ___ | <u><b>X</b></u> | ___             | ___ |
| 3. An effect on any unique, rare, or endangered species of flora?      | ___ | ___             | <u><b>X</b></u> | ___ |

**Comments:** Alternatives 2, 3 and 4 will clear vegetation and reduce the numbers of existing plants. Alternatives 2, 3 and 4 all have the potential to introduce noxious weeds to the highway corridor, and these weeds could spread into the adjacent forest and riparian zones. Alternatives 2 and 3 will only affect existing plants adjacent to the existing roadway. Alternative 4 will also clear vegetation for new roadway alignments, and restore vegetation on segments of old roadway that will be obliterated. Known populations of unique, rare or endangered plants will be avoided whenever possible. Reseeding roadway obliteration sites with erosion control seed mixes will help prevent the establishment and spread of noxious weeds.

H      M      L      N/A

**F. Fauna** - Will the proposal result in:

- |  |     |          |          |     |
|--|-----|----------|----------|-----|
| 1. Changes in the diversity or numbers of any species of fauna?          | ___ | ___      | <u>X</u> | ___ |
| 2. An effect on any threatened, endangered or faunal species of concern? | ___ | <u>X</u> | ___      | ___ |
| 3. Introduction of a barrier to the migration or movement of fauna?      | ___ | ___      | <u>X</u> | ___ |

**Comments:** Alternatives 2, 3 and 4 will clear vegetation that provides habitat for birds and animals. Alternatives 2 and 3 will remove strips of vegetation immediately adjacent to the existing roadway in habitats already disturbed by vehicular noise and the presence of humans. Alternative 4 will clear some new rights of way, removing some less disturbed habitat where the roadway will be realigned, but abandoned roadway segments will be obliterated and revegetated, thereby restoring some faunal habitat. The new alignments may represent a barrier to the movements of smaller, less mobile species, but no more so than the existing road. All known populations of threatened, endangered and species of concern will be avoided, and existing vegetated buffers will be maintained to the extent possible.

H      M      L      N/A

**G. Noise** - Will the proposal increase existing noise levels?

\_\_\_      \_\_\_      X      \_\_\_

**Comments:** All of the build alternatives (2, 3 and 4) will generate some short-term noise from construction equipment and trucks. Alternatives 3 and 4 will require some rock blasting for widening and realignment. Alternative 4 may introduce short-term noise into realignment areas previously less disturbed and may reduce the width of buffer vegetation adjacent to the existing roadway. Seasonal restrictions on some types of noise-producing activities (particularly blasting) may be necessary to protect sensitive species of wildlife in some areas.

H   M   L   N/A

**H. Land Use** - Will the proposal cause:

- |  |     |                 |                 |                 |
|--|-----|-----------------|-----------------|-----------------|
| 1. The alteration of the present or planned land use of the area?        | ___ | <u><b>X</b></u> | ___             | ___             |
| 2. Reduction in the acreage of any prime and unique farm land?           | ___ | ___             | ___             | <u><b>X</b></u> |
| 3. Any cumulative or secondary impacts with the proposal implementation? | ___ | ___             | <u><b>X</b></u> | ___             |

**Comments:** Improvements to the roadway associated with the build alternatives (2, 3 and 4) may encourage more people to use this area of the National Forest, both as a through travel route to other destinations and for recreation in the immediate project vicinity. This is likely to result in some minor cumulative and secondary impacts resulting from the increased presence of vehicles on the road and people in the forest adjacent to the road. Alternative 4, because of its new rights of way cleared for realignments, may remove some timber from areas designated for other planned land use categories.

H   M   L   N/A

**I. Natural Resources** - Will the proposal cause:

- |   |     |     |                 |     |
|---|-----|-----|-----------------|-----|
| 1. Increases in the rate of use of any natural resources? | ___ | ___ | <u><b>X</b></u> | ___ |
| 2. Reductions of any nonrenewable natural resources?      | ___ | ___ | <u><b>X</b></u> | ___ |

**Comments:** The build alternatives 2,3 and 4 will slightly and temporarily increase the rate of use of petroleum products, corrugated metal culvert pipe, and rock products, for the short-term life of the project. A correspondingly minute reduction of all three nonrenewable natural resources (crude oil, metallic ore and rock) will occur.

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>J. Energy</b> - Will this proposal cause:				
1. Use of substantial amounts of fuel or energy?	___	___	<u>X</u>	___
2. Savings of substantial amounts of fuel or energy?	___	___	<u>X</u>	___

**Comments:** Neither the use of fuel and energy during construction, nor the savings of fuel and energy from the more efficient finished project meet the definition of “substantial”, when compared to the quantities currently available on the local market.

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>K. Aesthetics</b> -Will the proposal cause:				
1. A change in a scenic vista or view as seen from the road?	___	___	<u>X</u>	___
2. A change in a scenic vista or view when viewing toward the road?	___	___	<u>X</u>	___
3. A conflict with the scenic management plans of other agencies?	___	___	___	<u>X</u>
4. New light or glare?	___	___	___	<u>X</u>

**Comments:** Alternative 1 will have no effect on aesthetics. Alternative 2 will have only minor effects on aesthetics due to relatively small areas cleared for slope stabilization and drainage improvements as viewed from the roadway itself. Alternative 3 will open cut slopes and place fill slopes that are visible from other roadways and opposite hillsides until they are revegetated. Alternative 4 will widen cuts and fills along the existing roadway as in Alternative 3, but will also open new rights of way, cutting new roadway corridors through several stands of timber and will construct several large fill slopes that may be visible from a greater distance until the soil and fill surfaces are revegetated. “Feathering” the cut lines (making them irregular rather than linear) at the clearing limits will also help soften the visual effect of clearing the rights of way.

H      M      L      N/A

**L. Recreation** - Will this proposal cause an impact to an existing recreational facility or impact recreational opportunities? Does this proposal have a potential 4(f) impact?

\_\_\_\_\_ **X** \_\_\_\_\_

**Comments:** In the short term, the construction contractor's use of some recreational parking areas for staging and storage of equipment and materials may temporarily interfere with the use of these areas during the spring through fall construction season. These temporary impacts will be offset, however, by planned improvements to roadside pullouts, and the sno-park and snow play area at Oldman Pass, that will be available for use when the project is completed. These parking areas are used primarily during the winter for snow sports, so the actual impacts to recreation will be minimal. Traffic control through the construction zone will inconvenience recreational travelers during the spring through fall work season, but will not preclude any existing recreational opportunities. The temporary, off-season use of the parking areas followed by subsequent improvements does not constitute a long-term adverse effect or constructive use under Section 4(f) regulations.

H      M      L      N/A

**M. Archaeological/Historical** - Will the proposal result in an alteration of an archaeological or historical resource that is on or eligible for the National Register of Historic Places (NRHP).

\_\_\_\_\_ \_\_\_\_\_ **X** \_\_\_\_\_

**Comments:** After completing a cultural resources survey, the Forest Archaeologist has determined that there will be *no effect* to any cultural resources on or eligible for the National Register of Historic Places resulting from any of the alternatives currently proposed. (See Appendix A).



	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>N. Hazardous Waste - Will the proposal:</b>				
1. Affect a known hazardous waste site on the EPA's National Priority List (NPL) or a statewide list?	___	___	___	<u><b>X</b></u>
2. Affect a site with the potential for hazardous waste (e.g., sanitary landfill, gasoline stations, industrial sites?	___	___	___	<u><b>X</b></u>
3. Increase the likelihood of an explosion or release of hazardous substances, e.g., oil, chemicals, pesticides, in the event of an accident?	___	___	<u><b>X</b></u>	___

**Comments:** There are no known hazardous waste sites in the project vicinity, but there is always at least a remote risk of an explosion, fire or release of petroleum products in the event of an accident, whenever a project requires the transport, use and temporary storage of heavy equipment, fuels, coolants and lubricants.

<b>O. Socio-Economic - Will this proposal:</b>				
1. Alter the location, distribution, or density of the human population of the area?	___	___	___	<u><b>X</b></u>
2. Affect racial, ethnic, religious, minority, elderly, or low income groups? Environmental	___	___	___	<u><b>X</b></u>
3. Affect existing housing or business ?	___	___	<u><b>X</b></u>	___
4. Create a demand for additional housing?	___	___	___	<u><b>X</b></u>
5. Affect local employment, taxes, property values, etc.?	___	___	<u><b>X</b></u>	___

**Comments:** Local businesses may benefit from an increase in customers if the proposed road improvements encourage increased use of Wind River Road as a gateway route to Mt. St. Helens and as access to recreation in other parts of the National Forest. This could , in turn, generate some additional jobs in the local area. Both would be desirable outcomes for the local communities of Skamania County.

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>P. Public Services</b> - Will this proposal have an effect on or result in a need for new or altered services in any of the following areas?				
1. Fire protection?	___	___	<u><b>X</b></u>	___
2. Police protection?	___	___	<u><b>X</b></u>	___
3. Schools?	___	___	<u><b>X</b></u>	___
4. Maintenance of public facilities including roads?	___	<u><b>X</b></u>	___	___
5. Airports?	___	___	<u><b>X</b></u>	___
6. Religious facilities?	___	___	<u><b>X</b></u>	___
7. Health services?	___	___	<u><b>X</b></u>	___
8. Mail delivery?	___	___	<u><b>X</b></u>	___
9. Parks and recreational facilities?	___	<u><b>X</b></u>	___	___
10. Other services?	___	___	<u><b>X</b></u>	___

**Comments:** Maintenance should be substantially reduced for the projected 20-year lifespan of the roadway and appurtenances. This represents a considerable cost savings for the maintaining agency, the Skamania County Department of Public Works. An increased use of local services and of National Forest recreational facilities are intended outcomes of this proposed project, and improvements to these facilities are an integral

part of the planned improvements. The costs of these increased public services should be offset by anticipated increases in the local tax base generated by increased sales of goods and services, and, to a lesser extent, by a predicted increase in local property values, over a longer time frame.

	<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>Q.      Transportation/Circulation - Will this proposal cause:</b>				
1.    An increase in motor vehicle movement?	___	___	<u><b>X</b></u>	___
2.    An increase in movement or hazards to bicyclists, pedestrians, or equestrians?	___	___	<u><b>X</b></u>	___
3.    An effect to existing parking facilities or create a demand for new parking?	___	___	<u><b>X</b></u>	___
4.    Changes in access?	___	___	<u><b>X</b></u>	___
5.    An impact upon existing vehicle, rail, water, or air transportation systems?	___	<u><b>X</b></u>	___	___
6.    Impacts associated with construction activities, e.g., detours, delays, etc.?	___	<u><b>X</b></u>	___	___

**Comments:** The proposed project will significantly improve Wind River Road as a transportation facility, when compared to existing conditions.

The proposed project will not in and of itself *create* an increase in motor vehicle use, but its primary purpose is to *accommodate* what Skamania County's Department of Public Works predicts will be a tripling of average daily traffic (ADT), from its current 115 vehicles per day to 350 vehicles per day within the next 20 years, based on an average annual traffic increase of 5.8%. The proposed roadway improvements will not *generate* more traffic, since no additional access points or developments are proposed, but the straighter, smoother, safer roadway has the potential to encourage motorists to use the road, and having experienced its improved driveability, to visit more often, thereby influencing the *rate* of increase.

The nature of the work that needs to be done dictates that there will be single lane detours and delays associated with the construction of the roadway improvements. The public should expect trip times through the work zone to increase from a few minutes to as much as 30 minutes, depending on what type of work is being done, and how many different operations are occurring simultaneously at different locations within the work zone. Work zones are inherently hazardous to bicyclists, pedestrians and equestrians, and they are urged to use caution traveling through the construction area, and to obey instructions from the flaggers. Delays will be held to a minimum by controlling traffic flow with flaggers and/or pilot cars. Emergency vehicles and law enforcement officers will be given special consideration, and will be escorted through the work zone as quickly as possible during any emergency.

		<u>H</u>	<u>M</u>	<u>L</u>	<u>N/A</u>
<b>R.</b>	<b>Utilities</b> - Will this proposal cause a need for new systems or alterations of the following utilities:				
1.	Power?	___	___	___	<u><b>X</b></u>
2.	Natural Gas?	___	___	___	<u><b>X</b></u>
3.	Water?	___	___	___	<u><b>X</b></u>
4.	Sanitary or Storm Sewer?	___	___	___	<u><b>X</b></u>
5.	Communication Systems?	___	___	___	<u><b>X</b></u>
6.	Solid Waste Disposal?	___	___	___	<u><b>X</b></u>
7.	Pipelines?	___	___	___	<u><b>X</b></u>
8.	Cable TV?	___	___	___	<u><b>X</b></u>

**Comments:** No utilities currently exist along this section of Wind River Road, and none are proposed.

## **VIII. COORDINATION AND CONSULTATION**

### **A. SEE Study Team**

*[A Social, Economic, and Environmental (SEE) Study Team or Interdisciplinary Team (IDT) has the responsibility to identify and assess environmental effects of the proposal and clarify issues of choice. This team is composed of representatives of participating agencies. Team members call on available disciplines within their respective agencies for technical assistance.]*

The SEE Study Team members for this proposed project are indicated below :

Brian Allen, Design Operations Engineer, FHWA-WFLHD  
Janice Halvorsen, Design Engineer, FHWA-WFLHD  
Steve Zaske, Environmental Specialist, FHWA-WFLHD  
Bill Pierce, Local Programs Engineer, WSDOT - SW Region  
Greg Cox, District Ranger, USFS - Mt. Adams Ranger District  
Richard Robinson, Engineering Technician, Skamania County DPW

### **B. Coordinating Agencies and Other Interested Parties :**

U.S. Forest Service  
Gifford Pinchot National Forest  
10600 N.E. 51<sup>st</sup> Circle  
Vancouver, WA 98682-5419  
(360) 891-5000

Washington State Department of Transportation  
Southwest Region  
P.O. Box 1709  
Vancouver, WA 98668-1709  
(360) 905-2000

Skamania County Department of Public Works  
P.O. Box 790  
Stevenson, WA 98648  
(509) 427-9448

Washington State Department of Fish and Wildlife  
Region No. 5  
2108 Grand Blvd.  
Vancouver, WA 98661  
(360) 696-6211

Washington State Department of Ecology  
Southwest Region Office  
P.O. Box 47775  
Olympia, WA 98504-7775  
(360) 407-6300

U.S. Army, Corps of Engineers  
Seattle District  
P.O. Box 3755  
Seattle, WA 98125-2255  
(206) 764-3495

U.S. Fish and Wildlife Service  
Western Washington Office  
510 Desmond Drive SE, Suite 102  
Lacey, WA 98501  
(360) 753-9529

March 5 , 2001

**PUBLIC NOTICE**

TO INTERESTED PARTIES :

Washington Forest Highway 30  
Wind River Road

The Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration, in cooperation with the Washington State Department of Transportation, the U.S. Forest Service, and Skamania County, is planning to upgrade Forest Highway 30, known locally as Wind River Road. The proposed construction would start at the Paradise Creek Campground (MP 20.5) and extend northerly 4.9 miles to the summit of Oldman Pass (MP 25.4).

This segment of Wind River Road is a narrow, winding two-lane paved road on a steep grade. Because of shading due to topography and a dense forest canopy, icy spots on the pavement are common throughout the winter months. The roadway generally lacks safety features, such as guard rail and hazard warning signs, and several sections have a history of rockfall and minor drainage problems that can pose hazards to motorists.

The proposed project will produce a more uniform, safer, wider paved road after the alternatives for improving the roadway are further evaluated. This upgrading will be coordinated with county efforts to maintain the road and will be consistent with the area-wide goal of an improved Randle to Carson north-south corridor through the Gifford Pinchot National Forest, and as the southern gateway to the Mt. St. Helens National Volcanic Monument.

As part of our early project scoping, please inform this office of any special concerns or interests for the proposed project. We request your input in determining what environmental investigations, permits and approvals are required. Specific comments identifying important natural features or potential impacts will be used to prepare project documentation. Please forward your comments to me at the above letterhead address, or call (360) 696-7723, or E-mail me at [steve.zaske@flhwa.dot.gov](mailto:steve.zaske@flhwa.dot.gov).

Sincerely yours,



Steven D. Zaske

Environmental Protection Specialist



U.S. Department of Transportation Federal Highway Administration  FIELD TRIP REPORT	
REPORT ON: Field review of Wind River Road	DIVISION: WFLHD
DATE OF INSPECTION: 04/10/00	PROJECT NUMBER: WA PFH 30-1(3)

### Attendees

Field review conducted 04/10/01 with the following in attendance:

Kerry Cook, Geotechnical Engineer, FHWA Western Federal Lands  
 Philip Taylor, Highway Designer, FHWA Western Federal Lands  
 Steve Zaske, Environmental Specialist, FHWA Western Federal Lands  
 Brian Bair, Fisheries Biologist, USFS-Wind River  
 Bruce Burke, Engineering Technician, USFS-Mid Columbia Engineering Zone  
 Sally Clagget, District Botanist, USFS-Mt Adams R.D.  
 Catherine Flick, Wildlife Biologist, USFS-Mt Adams R.D.  
 Vince Harke, Fish & Wildlife Biologist, USFWS - Lacey WA  
 Julie Knutson, Planning Staff, USFS-Mt Adams R.D.  
 Cheryl Mack, Archaeologist, USFS -Mt Adams R.D.

### Purpose

To discuss preliminary alignment alternatives, coordinate environmental assessment, and conduct field review.

### Location

WA FH 30, Wind River Road, MP 20.5 to 25.4, Gifford Pinchot National Forest, Skamania County.

Meeting prior to field review was held at the USFS Hemlock Work Center (formerly the Hemlock Ranger Station), on Hemlock Road off FH 30, 1 mile west of Stabler. Meeting lasted about 2 hours.

### Field Review

FHWA presented preliminary alignment alternatives for discussion, including a 40 kph design, 70 kph design, and 70 kph design with design exceptions. The environmental surveys will be done on a corridor width that includes all three of the alternatives.

Design vehicle will be truck, e.g. semi-trailer combination.

Geotechnical investigations that result in "ground-disturbing activities", such as test pits, access roads and drill pads, may need to be postponed until environmental surveys can be completed and NEPA documentation approved. Sites located within spotted owl "circles" near nest sites may be delayed until two consecutive seasons of data can be collected. FHWA will explore

alternative site-specific surveys and separate documentation (e.g. Categorcial Exclusions) to try to get these foundation investigations done prior to final design. USFS may be able to authorize this testing early, but there seemed to be differing opinions on that subject among the USFS staff attending the meeting.

Water routing and sedimentation control will be of concern because of proximity to Wind River and its tributaries, which contain threatened Lower Columbia River steelhead, and possibly bull trout as well. Pulling old culverts in deep fills will need special BMP's to control resulting sediment flows and downstream sedimentation.

The two live creek crossings along the route (Oldman Creek, and "Young Man's" Creek - actually an un-named tributary) are currently carried under the roadway through conventional culverts. Replacement culverts at these sites should provide natural drainage substrate and allow for fish passage. A recently signed Memorandum of Agreement (MOA) between the USFS and the Washington Department of Ecology (DOE) requires that all newly installed and replacement culverts be an open-bottomed design and must pass a 100-year flood. FHWA will obtain a copy of the MOA for reference.

USFS wants tree planting (including some bigleaf maples) to be included as part of revegetation.

No rare vascular plant species are currently known to exist along the corridor; however, additional surveys still need to be conducted. The Northwest Forest Plan requires the USFS to protect non-vascular species such as mosses and lichens that are associated with old growth (LSR) habitats. These bryophytes are part of the "survey and manage" species used as indicator species to measure overall health of the forest ecosystem.

The Paradise Creek area at south end of project includes an LSR which may constrain realignment options at south end. The Paradise Creek Campground at the south end is protected under the Department of Transportation Act Section 4(f) regulations. Also at the south end of the project is a recorded prehistoric cultural site, located at north end of the campground (near the 70kph design alternative).

The construction noise restriction period for nesting spotted owls is usually from March through June, and prohibits loud concussive and sporadic noise, such as chain saws, rock drills, guard rail post drop hammers and blasting within a spotted owl nest "circle".

Obliteration of abandoned sections of road was discussed. Options include reusing existing pavement as fill in new road embankment, hauling old pavement to waste site(s), or breaking up old pavement and leaving it in place. USFS decommissioned abandoned sections of Curly Creek Rd and perhaps could do the same for this project. Decommissioning of abandoned sections is to be done per USFS specifications. Decommissioning is a "connected action", so the Environmental Assessment for this project will need to address decommissioning of abandoned sections of road and any associated impacts.

McClellan's Trail crosses the corridor near the north end of the project. The proposed alignment can probably be dovetailed into the existing alignment prior to the trail crossing and thereby avoid impacts to the trail. The trail, which crosses FH 30 about 100 meters north of the Oldman

Pass summit, is eligible for the National Register of Historic Places, and, as such, is protected by both Section 106 and Section 4(f).

Several junctions with side roads exist along the corridor. Some have been decommissioned and closed with berms. If decommissioned roads used during construction or if realigned route crosses decommissioned roads behind berms, will need to reconstruct berms. Existing berms along corridor provide inadequate barriers and need to be upgraded. Existing gates at closed side roads (e.g. at Oldman Pass Sno-Park) are inadequate barriers and need sturdier reconstruction. ATV's and 4-wheel drive vehicles have been driving around the locked gates, damaging vegetation and causing soil erosion.

USFS borrow sites are gated and FHWA can have access if we provide our own locks.

Excess or waste material from the north end of the project can be placed and shaped at the Old Man's Pass snowpark.

Locating environmental surveys can be done using hardcopy road plans if milepoints, culvert numbers and other information is provided on the plans. Microstation design files will also be provided to USFS to aid in recording environmental survey information.

A Project Agreement and a Reimbursable Agreement need to be developed as soon as possible in order to begin funding environmental surveys. FHWA will contact WFLHD Planning to initiate the P.A., and will begin preparation of the R.A. as soon as USFS cost estimates are available.

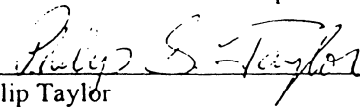
#### Action Items

- FHWA will provide more detailed road plans with alternative alignments and construction limits to be used by USFS for recording environmental survey information.
- FHWA will re-survey area to cover width of alternative alignments.
- FHWA will draft Project Agreement and Reimbursable Agreement for USFS concurrence.
- USFS is scheduled to deliver draft expertise reports to FHWA by the end of February, 2002, with final reports due by April, 2002.

Prepared by:

  
Steve Zaske  
Environmental Protection Specialist, AK/WA

12 APR 01  
Date

  
Philip Taylor  
Highway Design Engineer, AK/WA

4-12-01  
Date

# APPENDIX A

Mt. Adams Ranger District  
Gifford Pinchot National Forest

Approval Fiscal Year: 2002



Project: *Wind River Highway Realignment*

## PROFESSIONAL REVIEW

**Evaluation of Completeness:** Based on your review of this heritage resource survey report, please complete the following:

**a. In Your Opinion:**

- (1) Has background research been adequate to assure recognition of previously reported heritage resources? \_\_\_\_\_ NO   X   YES
- (2) Has the project been adequately inspected according to acceptable archaeological practice? \_\_\_\_\_ NO   X   YES
- (3) Has coverage been adequate to assure recording of all properties of potential National Register eligibility? \_\_\_\_\_ NO   X   YES
- (4) Have you any other reason to question the completeness or adequacy of this cultural resource report?   X   NO \_\_\_\_\_ YES
- (5) Given the location and nature of the project, is the level of reconnaissance adequate to identify and assure consideration of all sites of potential National Register eligibility? \_\_\_\_\_ NO   X   YES

\_\_\_\_\_ Monitoring Recommended \_\_\_\_\_ Professional \_\_\_\_\_ CRT  
\_\_\_\_\_ Professional Survey Recommended  
\_\_\_\_\_ Further Consideration Required (discuss any inadequacies below)

**b. Conclusion:** I   X   Do \_\_\_\_\_ Do Not regard this heritage survey report as complete and adequate to professional standards.

**Opinion on the effect of the proposed undertaking on heritage resources that might be eligible for the National Register of Historic Places:**

  X   No Effect (\_\_\_\_\_ Subject to implementation of the recommendations below)  
\_\_\_\_\_ No Adverse Effect (\_\_\_\_\_ Subject to implementation of recommendations below)  
\_\_\_\_\_ Adverse Effect (see assessment and/or mitigation recommended below)

**Explanation of opinion on effect:** Sites 45SA228, 5N7E-3/03, and abandoned (historic) Wind River Trail are outside of the area of potential effects.

**Remarks, Recommendations:**

**Reviewed by:** Richard H. McClure, Jr.  
**Title:** Forest Archaeologist  
**Station:** Mt. Adams Ranger Station  
Gifford Pinchot National Forest

\_\_\_\_\_/s/ Richard H. McClure, Jr.  
Signature  
\_\_\_\_\_  
Feb. 28, 2002  
Date